

Notice of Allowability

Application No.

10/764,003

Examiner

ARISTOCRATIS FOTAKIS

Applicant(s)

FARJAD-RAD, RAMIN

Art Unit

2611

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/08/2008.
2. ☒ The allowed claim(s) is/are 1, 3, 5 - 8, 10, 12 - 16 and 18 - 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr Joseph A. Sawyer, Jr on May 7, 2008.

The application has been amended as followed:

In claim 1, line 6, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 1, line 11 "*wherein the at least one summer*" should be replaced by "*wherein **each of the at least one summer***".

In claim 1, line 12 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by "*a mirror circuit coupled to **two of the at least two phase detectors***".

In claim 1, line 13 "*detecting a difference between the outputs of the at least two phase detectors;*" should be replaced by" *detecting a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 1, lines 18 - 19, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 8, lines 10 - 11, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 8, line 18 "*wherein the at least one summer*" should be replaced by" *wherein **each of the at least one summer***".

In claim 8, line 19 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by" *a mirror circuit coupled to **two of the at least two phase detectors***".

In claim 8, lines 20 - 21 "*detecting a difference between the outputs of the at least two phase detectors; and*" should be replaced by" *detecting a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 8, lines 23 - 24, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 15, lines 9 - 10, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 15, line 13 "*wherein the at least one summer*" should be replaced by "*wherein **each of the at least one summer***".

In claim 15, line 14 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by "*a mirror circuit coupled to **two of** the at least two phase detectors*".

In claim 15, line 15 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 15, lines 20 - 21, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 19, line 7, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 19, line 12 "*wherein the at least one summer*" should be replaced by "*wherein **each of the at least one summer***".

In claim 19, line 13 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by "*a mirror circuit coupled to **two of** the at least two phase detectors*".

In claim 19, line 14 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 19, lines 19 - 20, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 20, line 7, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 20, line 12 "*wherein the at least one summer*" should be replaced by "*wherein **each of** the at least one summer*".

In claim 20, line 13 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by "*a mirror circuit coupled to **two of** the at least two phase detectors*".

In claim 20, line 14 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 20, lines 19 - 20, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 21, lines 8 - 9, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 21, line 14 "*wherein the at least one summer*" should be replaced by "*wherein **each of the at least one summer***".

In claim 21, line 15 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by "*a mirror circuit coupled to **two of the at least two phase detectors***".

In claim 21, line 16 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 21, lines 21 - 22, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 22, lines 8 - 9, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 22, line 14 "*wherein the at least one summer*" should be replaced by" *wherein each of the at least one summer*".

In claim 22, line 15 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by" *a mirror circuit coupled to **two of** the at least two phase detectors*".

In claim 22, line 16 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 22, lines 21 - 22, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

In claim 23, lines 10 - 11, "phase differences between pairs" should be replaced by "phase **spacings** between pairs".

In claim 23, line 16 "*wherein the at least one summer*" should be replaced by" *wherein each of the at least one summer*".

In claim 23, line 17 "*a mirror circuit coupled to the at least two phase detectors*" should be replaced by" *a mirror circuit coupled to **two of** the at least two phase detectors* ".

In claim 23, line 18 "*a difference between the outputs of the at least two phase detectors;*" should be replaced by "*a **phase** difference between the outputs of the two phase detectors; **and***".

In claim 23, lines 23 - 24, "phase difference between pairs" should be replaced by "phase **spacing** between pairs".

The following changes to the drawings have been approved by the examiner and agreed upon by applicant. In order to avoid abandonment of the application, applicant must make these agreed upon drawing changes. The changes in Figure 3 and 4 are shown below:

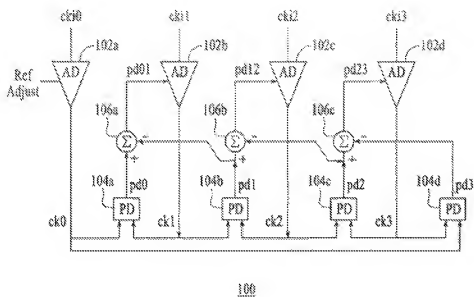


FIG. 3

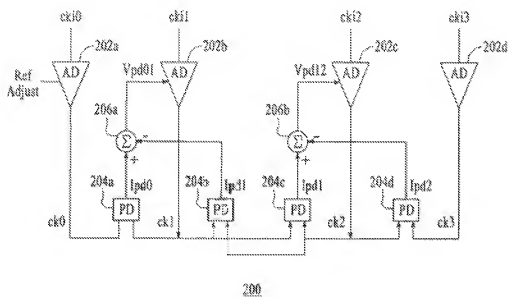


FIG. 4

Allowable Subject Matter

Claims 1, 3, 5 - 8, 10, 12 - 16 and 18 – 23 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Re independent claims 1, 8, 15 and 19 - 23, the prior art of record does not disclose of a mirror circuit coupled to the at least two phase detectors for detecting a difference between the outputs of the at least two phase detectors and a capacitor coupled to the mirror circuit for charging or discharging based upon the phase difference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARISTOCRATIS FOTAKIS whose telephone number is (571)270-1206. The examiner can normally be reached on Monday - Thursday 6:30 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aristocratis Fotakis/

Examiner, Art Unit 2611

/CHIEH M FAN/

Supervisory Patent Examiner, Art Unit 2611